

A PRODUCT LIABILITY “HODGEPODGE”

BY
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I. What is product liability?

A. A theory of law intended to allow a remedy for injuries caused by defective products.

1. Defect: That condition which causes a product to be unreasonably dangerous when put to its intended usual and customary usage, (e.g., a car being driven on the roadway).

2. Terms “defective” and “unreasonably dangerous” are interchangeable. If a product is defective, it is necessarily unreasonably dangerous under Alabama law.

B. Alabama created product liability law through common law court decisions (Casrell v. Altec Industries). All of Alabama product law is common law made by the Alabama Supreme Court at present. There are no statutory product liability provisions.

C. Casrell created what is known as the Alabama Extended Manufacturers Liability Doctrine (AEMLD). Under AEMLD, all persons in the chain of distribution of a defective product are potentially liable. This means that not only the manufacturer of the product, but all persons who were responsible for the design and marketing of a defective product are liable for injuries that result from the defective condition. Designers, manufacturers, consultants, and retailers of a defective product are all liable for the injury.

D. Liability is strict subject to certain allowable defenses. The defendant(s) may raise "proximate cause" as a defense, i.e., that the product or the defect in the product did not cause the injury. The defendant(s) may also raise the defense of contributory negligence in the use of the product and assumption of the risk.

E. Retailers have a special defense of "no causal relation" available to them. Under "no causal relation," the retailer can claim that it had no greater opportunity to inspect the product than did the consumer and that it did nothing to the product to cause the defective condition. Basically, this defense is available to retailers who sell pre-packaged goods at retail where it did not do any assembly or modification to the product before final sale.

II. What is a defect?

A. Generally, there are four types of defects. A product may be defective by design, manufacture, by lack of guarding, or for a lack of proper warnings.

1. Good examples:
 - a. ***Bronco II***: Rollover risk -- defective design; Twin I beam suspension; jacking lifts the center of gravity which leads to roll-over.
 - b. ***Pinto***: Fire hazard -- bad design of fuel tank location.
 - c. ***Lawnmower***: Guarding defect -- sold without hood to enclose the blade.
 - d. ***Prescription Drug***: Warning defect -- label which does not warn of adverse drug interactions, (i.e., interactions with alcohol or other drugs).

III. Proof of a Defect

A. Must show proof that a defect exists and that the defect caused injury. Generally, this will require expert testimony since most product liability cases rely on engineering. Was there a better way to engineer the product and, if so, did the lack of proper engineering lead to injury?

1. Most designers will admit that the designer or manufacturer of a product must analyze the product for hazards. A hazard is an unreasonable risk of injury to the end user or a foreseeable user. If the use of the product is foreseeable, it is considered an intended use.

2. Designers all agree that there is a three-step analysis they should follow to remedy hazards. In general, if a designer finds a hazard in their product, they must do one of three things:

- a. Design out the hazard;
- b. Guard the hazard; or
- c. Warn of the existence of the hazard and give proper instructions.

3. Defects must be designed out of the product before guarding is considered and guard, if possible, before a warning is considered. No hazard should be unremedied.

IV. Defect Must Cause Injury

A. The claimed defect must be the proximate cause and the cause in fact of the injury. It must be the condition that precipitates the injury. There must be some evidence to link the defect to the injury complained of.

V. Damages

A. The gravamen of a product liability case is negligence. Thus, actual damages are recoverable. Lost wages, pain and suffering, mental anguish, and loss of enjoyment of life are recoverable. In cases where wantonness can be proven, punitive damages can be recovered. There is no limit on punitive damages that a jury may award.

B. If death results from a product defect, the damages recoverable are only punitive damages. Compensatory damages for wrongful death are not recoverable in

the State of Alabama.

EVIDENCE SPOILIATION - TACTICS AND STRATEGY

Spoliation of evidence claims constitute a growing, troubling issue in the practice of law. Although spoliation can occur in any case where there is some physical piece of evidence such as weapons,¹ heaters and extension cords,² documents,³ or maintenance records,⁴ this paper will focus on the doctrine of spoliation as it relates to the investigation and preparation of a products liability suit. It is possible to litigate without the product that is claimed to be defective. However, the loss or destruction of the allegedly defective product or other evidence will encourage defendants to bring a spoliation claim against the plaintiff.⁵ It is the duty and responsibility of the plaintiff's lawyer to his client, and to himself, to avoid such loss or destruction of evidence that will threaten his client's claims.

Commentators have noted that spoliation claims are on the rise. The increasing frequency of spoliation claims was discussed by Francis Hare, among others. Brother Hare stated:

Judging from the sheer number of reported cases, the destruction, alteration and other spoliation of evidence by a party or prospective party to litigation has become widespread in the past decade. Another possible explanation for the growth of these cases is that evidence spoliation is being detected with greater frequency. According to Lawrence Solom, Professor of Law, Loyola Law School, and Steven Marzem, an Assistant United States Solicitor General, "more than eighty percent of the cases involving discovery sanctions for evidence destruction have been reported since 1980." This information may be stale news to those who regularly litigate against large corporations; nevertheless, it is a sad commentary on the state of our discovery system.⁶

Case law recognizes that spoliation of evidence can occur along a continuum that ranges from negligent loss of evidence to outright intentional destruction of evidence. Cases show that defendants are often accused of losing or destroying crucial evidence. Very often, evidence that is crucial to a case may be in the hands of potential defendants prior to trial. Defendants obviously have an incentive to destroy or lose evidence that may incriminate them at trial. Thus, it becomes the plaintiff's burden to prevent the loss of evidence prior to trial or prior to the filing of suit. The loss of crucial evidence may be devastating to the plaintiff's case. If the loss or destruction occurs during the plaintiff's attorney's watch, the consequences to the attorney may not be desirable.

The thrust of this article is to give some insight into avoiding spoliation claims by defendants. Very often, spoliation claims against plaintiffs are frivolous defense tactics intended to harass or intimidate plaintiffs. Although this article is not intended to be exhaustive, it is intended to give plaintiff's lawyers some insight into avoiding the issue altogether.

The trend in the law is clear. While the Alabama Supreme Court still follows the long-standing policy of affording litigants a trial on the merits of their case whenever possible, the court must balance the competing interests of the parties and maintaining the integrity of the judicial process. The risk of becoming involved in a spoliation dispute in today's litigation climate is very real. The consequences of becoming embroiled in such a controversy may be onerous to the parties and their counsel. It goes without saying that plaintiff's counsel should take no action with regard to evidence in the case that would invite a spoliation claim by the defense. Where this issue is concerned, the best offense is a good defense. Do not leave the door open for defendants to bring such a claim against your client.

The best way to win a spoliation dispute is not to get involved in the first place. I have attempted to set out below some procedures which plaintiff's counsel may follow in order to minimize the risk of becoming involved in a spoliation dispute. These suggestions are cast in terms of product liability lawsuits, but they are equally applicable to any case in which there is physical or documentary evidence which must be accounted for. They are as follows:

1. GET CONTROL OF THE PRODUCT. If a potential product liability client comes into your office, the first question you should ask him or her is: "where is the product?" It will be much easier to evaluate and prepare the case if you have control of the product. Getting control of the product as early as possible in the litigation will certainly reduce the likelihood of its loss or alteration.

If the plaintiff owns the product or has possession of it, then gaining control for purposes of the lawsuit is easy enough. However, if a third party or potential defendant has the product, the issue becomes more problematic. At the very least, counsel for the plaintiff should contact the party who has possession of the product in writing and put them on notice of the fact that the product is intended to be evidence in a lawsuit and that they have a responsibility to maintain the product in its present condition, unchanged, until the lawsuit is resolved. If you intend to pursue the case and it is within your means, the plaintiff's lawyer should try to purchase the product from the third party. It should be remembered that unless the third party is made aware of the relevance of the evidence sought, they have no duty to maintain it.⁷

If it appears that the product is subject to eminent destruction, the plaintiff's attorney should probably consider immediately filing a motion for a temporary restraining order pursuant to *Ala.R.Civ.P.*, Rule 65. Do not leave the door open for the defense to claim that you lost the product on your watch. If the product is in no danger of being destroyed, but is within the possession of a third party, the plaintiff's attorney may consider filing a motion for pretrial discovery pursuant to *Ala.R.Civ.P.* 27. Trial courts will generally grant this type of petition in order to allow the plaintiff access to the product to evaluate the claim. Moreover, courts will

generally grant an injunctive type request pursuant to Rule 27 to maintain the product "in its present state," unchanged, until the plaintiff has an opportunity to examine it.⁸

It is extremely important to the plaintiff's case that plaintiff's counsel gain control of the product early in the litigation. Therefore, it is incumbent upon plaintiff's counsel to take whatever measures are necessary in securing control of the product. Do not be afraid to approach the court and ask for a temporary restraining order or permanent injunctive relief if you are faced with eminent loss of the product or a recalcitrant third party. Do not leave the door open.

2. PRIOR TO FILING SUIT, DO NO DESTRUCTIVE TESTING.

Disassembling a product for purposes of evaluating the case or testing it prior to filing suit in such a manner that the product is damaged or altered substantially will invite a spoliation claim. Testing which requires disassembly of the parts of the product may create an irresistible opportunity for the defendant to claim that spoliation occurred. Russell Welch and Andrew Marquardt recognized in their work, "Spoliation of Evidence," that "[p]laintiffs are increasingly at risk of incurring sanctions for spoliation when the party has complete access to the product before suit is filed but permits its destruction prior to the defendant's inspection."⁹ However, if a spoliation motion is brought after testing has occurred, recall that there is often a need for the defense to show culpability or willfulness in order to impose a complete dismissal.¹⁰

3. DOCUMENT EVERYTHING YOU DO WITH THE PRODUCT PRIOR TO FILING SUIT. Consider videotaping and photography in every instance that there is any type of inspection of the product or change in the location of the product prior to filing suit.

This will help minimize the risk of a spoliation claim. It will also help minimize some of the potential for confusion over the actions of the plaintiff and plaintiff's counsel as it relates to the product itself.

4. ONCE YOU FILE SUIT, INSIST ON A PROTECTIVE ORDER SAFEGUARDING THE PRODUCT AND ALL OF ITS COMPONENT PARTS. Get the defendant's agreement on how the product is to be examined and handled subsequent to the filing of suit. Get the defendant(s) to agree that there will be no destructive testing of the product without an agreement of all parties. It is also helpful to set up an agreed protocol to be followed for examinations of the product by experts for the plaintiff and defense. For example, it is a good practice to have the defendants agree to have all gross examinations of the product concluded by a date certain. If destructive testing is to take place, it should begin only after all parties have had an opportunity to complete a gross examination of the product, and pursuant to a clear explicit agreement of the parties. Any destructive testing or disassembly of the product or any component parts thereof should be documented by videotape or some other method of transcription agreeable to all parties. Procuring the defendant's agreement on these issues will help avoid confusion of the issues and lessen the risk of spoliation claims.

5. COMMUNICATE WITH THE DEFENDANT. If you intend to do any testing or examination of the product subsequent to filing suit, give the defendant(s) notice of what you intend to do. Invite the defendant(s) to be present during examinations of the product.

6. THOROUGHLY DOCUMENT EVERY OCCASION ON WHICH YOU

EXAMINE THE PRODUCT. Nothing can insulate the plaintiff from spoliation claims more than clearly documenting activities regarding the product. The more clearly plaintiff's counsel documents activities, the less likely it is that the defense will bring some sort of spoliation claim.

Conclusion

Spoliation claims are on the rise. The inclination of courts to enter dismissals of plaintiffs' cases is likewise on the rise. You can never be too careful, or too paranoid, when it comes to handling evidence that will eventually become the centerpiece of litigation. The best way to deal with a spoliation claim is to avoid it ever being brought in the first place.

DAUBERT

Expert Testimony

This section focuses on the applicability of Daubert¹¹ in product liability cases as well as causes of action wherein expert testimony is introduced. As has Alabama, many states have adopted a version of the Federal Rules of Evidence. Many of these states, including Alabama, have retained the Frye¹² standard for governing the admissibility of expert testimony. Given the confusion surrounding the application of Daubert, and the abusive misapplications as seen in Carmichael v. Samyang Tires,¹³ it is likely that defendants will be urging state courts who have not yet done so, to adopt the Daubert standard in ruling on the admissibility of expert testimony.

Even though the Daubert Court specifically cautioned that their opinion did not "set out a definitive checklist or test,"¹⁴ a manufacturer's association urged the Missouri Supreme Court to adopt the U.S. Supreme Court's gate-keeping standards for expert testimony. The

manufacturers argued that the “four point test” set out in Daubert provides courts “with a checklist of the indicia of evidentiary reliability.”¹⁵

A close reading of the Daubert opinion clearly reveals the Court’s intent to craft a more liberal, less restrictive basis for the admission of proffered expert testimony. The Court was careful to note that “a rigid, general acceptance requirement would be at odds with the ‘liberal thrust’ of the Federal Rules and their general approach of relaxing the traditional barriers to ‘opinion testimony’.”¹⁶ In responding to the defendant’s assertions that abandonment of the Frye standard would result in a “free-for-all admission of absurd and irrational pseudo-scientific assertions,” the Court stated that “vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof, are the traditional and appropriate means of attacking shaky but admissible evidence.”¹⁷ These conventional devices, rather than wholesale exclusion under an uncompromising “general acceptance” test are the appropriate safeguards where the basis of scientific testimony meets the standards of Rule 702.¹⁸

The rationale of the Daubert opinion and the reason for its more liberal view than the Frye test is quite obvious. If we limit expert opinions to those that are generally accepted, then obviously there is no room for innovation and technical advancement. Many innovations come from experts in litigation. What we think is true today in science may not have been accepted in the past. What we think to be true today, may not be true tomorrow.

The Daubert opinion also points out very clearly that the quest for truth in the courtroom and the quest for truth in the laboratory are not the same thing. Scientific

conclusions are subject to perpetual revision but, in order to accomplish its purpose, the law must resolve disputes finally and quickly. The Daubert opinion sums it up very succinctly by stating that the "Federal Rules of Evidence are designed not for the exhaustive search for cosmic understanding, but for a particularized resolution of legal disputes."¹⁹

Although intended to relax the austere standard of Frye,²⁰ the Daubert holding has, in practice, resulted in great confusion and thus produced inconsistent application. Additionally, it has at times been totally misapplied, resulting in great prejudice to the plaintiff. Because the trial judge is assigned the "gatekeeper function," rulings on admissibility of expert testimony will vary from court to court. This makes it very difficult, if not impossible, to predict whether a cutting-edge opinion will be admissible or not. It is often in the late stages of a proceeding that a ruling on the admissibility of expert testimony will be rendered. As has been seen, this can and often does result in dismissal of the plaintiff's case after the incurrence of great expense and the expenditure of many man-hours. The practitioner must be mindful of Daubert when determining whether or not to take a case, as well as when preparing for the expert's deposition and when preparing for trial. The practitioner, just as the trial judge, must determine whether the expert's opinions are scientifically valid.

HOT NEW AREA OF PRODUCT LIABILITY:

ADVANCE WINDOW GLAZING

According to the National Highway Transportation & Safety Association (NHTSA), an average of 7,492 people are killed and 9,211 people each year are seriously injured due to complete or partial ejection through windows.²¹ Advance window glazing is a generic term used to describe numerous methods applied to insure window strength is sufficient to prevent occupant ejection in vehicles. Advanced glazing in the front, rear, and side windows could potentially save an estimated 1,313 lives and prevent 1,297 serious injuries each year.²² Statistics such as these prompted the NHTSA to conduct research on the potential safety advantages of utilizing advanced glazing materials in front windshields.²³

I. Potential Safety Benefits of Advanced Glazing

Partial or complete ejection out of windows is associated with 25% of all light vehicle fatalities in 1993.²⁴ The highest number of fatalities may be attributed to the fact that ejection increases the probability of death or serious injury.²⁵ “Looking at the fatality rate of occupants that were involved in non-ejection-related events and comparing the fatality frequency to that fatality frequency of ejection-related accidents, it is seen that the fatality rate for ejected occupants is 37 times higher, than for non-ejected occupants.”²⁶ The NHTSA Advanced Glazing Research Team has tested three types of advanced glazing: (1) bilaminate glazing, in which a thin plastic film is bonded to the glass; (2) trilaminate, in

which a plastic film is laminated between two glass layers; and (3) rigid plastic, which is covered with an abrasion resistant coating and thermoformed to match the curvature of the tempered glass part.²⁷

Before the NHTSA required window glazing in vehicles, it conducted a multitude of testing to insure window glazing did not increase head injuries. The team used anthropomorphic dummies to measure the impact forces applied to the head under various simulated conditions. They conducted research on frontal impact, side impact and roll-over collisions. All test results showed that head injuries were not increased by the use of window glazing.²⁸ In response to this positive data, the federal government in the mid 1980's began requiring advance window glazing in the front windshield.²⁹

Carl C. Clark, formerly of the Vehicle Research Test Center at NHTSA, conducted research on glass plastic glazing. He determined that glazing is important due to its ability to reduce the likelihood of ejection since there is a greater seriousness of injuries sustained from ejection than from laceration.³⁰

II. Pros and Cons of Using Advanced Glazing

The potential for severe injuries are greatly increased if an occupant is ejected from the vehicle. Window glazing reduces the potential of occupants being ejected. It is undisputed that occupants are much safer if confined within the vehicle upon impact. Advance window glazing is now being used by all manufacturers in front windshields. However, automobile manufacturers have been slow to install window glazing throughout the vehicle even though all statistics show that lives will be saved if window glazing is

installed throughout.

Manufacturers have given countless reasons for its unwillingness to incorporate window glazing throughout the vehicle. First, manufacturers claim that head injuries will dramatically increase because advance window glazing creates a much harder windshield. Secondly, manufacturers claim that window glazing decreases visibility upon impact. Finally, they argue that it may be difficult to roll down the windows once the window is distorted due to impact.³¹

All of the manufacturer's reasons for failing to install window glazing throughout vehicles overlooks the most important consideration -- window glazing decreases severe injuries.³² All auto manufacturers readily admit that occupants are much safer if they remain in the vehicle upon impact in an accident. Because of automotive manufacturers' knowledge of the high rate of ejection through front windshields, manufacturers installed window glazing in the front windshield to protect occupants involved in frontal collisions from ejection. However, automotive manufacturers have not placed window glazing throughout the vehicle even though the automotive industry realizes that a substantial number of occupants will be ejected through side and rear windows.

Why is window glazing safe in the front windshield, but not in other areas of a vehicle? Why are the pitfalls marshaled by manufacturers against placing window glazing in the side and rear windows inapplicable to the front windshield? There is no good reason for the distinction. Manufacturers are well aware that window glazing will prevent ejection and save lives. The reason for not placing window glazing throughout the vehicle boils down to

economics. It has absolutely nothing to do with safety. Automotive manufacturers, such as GM, have alleged numerous downfalls to window glazing, but all statistics prove the benefits far outweigh the downfalls.³³ Although minor injury potential, such as scratches and cuts, may be increased, it is undisputed that severe injuries are decreased when window glazing is utilized because the occupants remain in the vehicle.

Conclusion

Manufacturers have always performed cost benefit analysis to justify safety decisions. The non-use of window glazing is another safety decision made by manufacturers on the basis of cost. Window glazing costs more than the tempered glass used in the side and rear windows of vehicles. Automotive manufacturers installed window glazing in the front windshields because NHTSA required it after numerous studies conclusively proved window glazing reduced serious injuries caused by ejection. But what about occupants ejected from side and rear windows in the vehicle? Are they not worthy of protection? Sure they are. All occupants deserve the maximum amount of protection possible, especially when the cost is approximately \$15.00 per four-door vehicle.³⁴

Manufacturers are not willing to spend an additional \$15.00 per vehicle to save lives. Therefore, the gatekeepers³⁵ for consumer safety must stand up and demand that public safety come before corporate profits. If not, there will be unnecessary tragedies on our public highways from occupant ejection which could have been prevented by window glazing.

END NOTES

¹Baptist Medical Centers v. Trippe, 643 So.2d 955 (Ala. 1994) (claim brought against plaintiff's attorneys for cleaning and firing gun, thus destroying evidence that gun had been concealed in a body cavity.)

²Beil v. Lakewood Eng'g. and Mfg. Co., 15 F.3d 546 (6th Cir. 1994)(plaintiff allowed to proceed with suit; product not in possession or control when lost); see also, Daniels v. G.N.B., Inc., 629 So.2d 595 (Miss. 1993).

³Struthers Patent Corp. v. Nestle Co., Inc., 558 F.Supp. 747 (DNJ 1981)

⁴Turner v. Hudson Transit Lines, Inc., 142 F.R.D. 68 (S.D. N.Y. 1991)

⁵See, e.g., In re Tutu Wells Contamination Litig., 162 F.R.D. 46 (D. Virgin Islands 1995)(failure to obey discovery orders, concealment of soil samples); Baliotis v. McNeil, 870 F.Supp. 1285 (M.D.Pa. 1994) (destruction of a house); Weinreich v. Sandhaus, 850 F.Supp. 1169 (S.D.N.Y. 1994) (failure to preserve documents); Allstate Ins. Co. v. Creative Env't. Corp., 1994 WL 499760 (DRI 1994)(destruction of plumbing that could have been discovered); Skeete v. McKinsey & Co., Inc., 1993 WL 256659 (S.D.N.Y. 1993)(lost materials subject to discovery request); Allister Mfg. Co. v. Fed. Ins. Co., 622 So.2d 1348 (Fla. 1993)(spoliation claim brought for a party's inadvertent loss of defective garage door opener); Dillon v. Nissan Motor Co., Ltd., 986 F.2d 263, 267 (8th Cir. 1993) (spoliation of automobile after plaintiff's expert had completed examination but before defendants allowed to examine, sanctions entered against plaintiff); Dillon v. Nissan Motor Corp., Ltd., 986 F.2d 263 (8th Cir. 1993)(auto destroyed before a thorough inspection occurred); General Env. Science Corp. v. Horsfall, 141 F.R.D. 443 (N.D. Ohio 1992) (destruction of relevant documents); Jeanblanc v. Oliver Carr Co., 1992 WL 189434 (DDC 1992)(destruction of relevant documents); Headley v. Chrysler Corp., 141 F.R.D. 362 (D. Mass. 1991)(spoliation claim brought against plaintiff for allowing destruction of automobile after plaintiff's expert had completed inspection but before defendant had opportunity to inspect); Stubli v. Big D. Int'l. Trucks, 810 P.2d 785 (Nev. 1991) (spoliation claim against plaintiff for removing component parts claimed defective yet failing to preserve remainder of vehicle); Sullivan v. General Motors Corp., 772 F.Supp. 358 (N.D. Ohio 1988) (spoliation claim against plaintiff for loss of vehicle); Welsh v. United States, 884 F.2d 1239 (6th Cir. 1988)(negligent destruction of documents); Anderson v. Cryovac, 862 F.2d 910 (1st Cir. 1988)(deliberate suppression of discovery material); Telectron v. Overhead Door Corp., 116 F.R.D. 107 (S.D. Fla. 1987)(flagrant and willful discovery destruction)

⁶Francis H. Hare, Jr., et al., Full Disclosure 141 (1994); see also, Welsh, W. R. and

Marquardt, A.C., Spoliation of Evidence, The Brief 9, Vol. 23, No. 2 (1994)

⁷Turner v. Hudson Transit Lines, Inc., 142 F.R.D. 68 (S.D.N.Y. 1991)(obligation to preserve evidence arises where a party is on notice that litigation is likely to be commenced); c.f., Weinrich v. Sandhaus, 550 F. Supp. 1169 (S.D. NY 1994)(evidence lost but no sanction because of lack of relevancy); see also, William T. Thompson Co. v. General Nutrition Corp., 593 F.Supp. 1443 (C.D.C.A. 1994)(defining duty to preserve).

⁸Welsh, W. R. and Marquardt, A.C., supra at 10.

⁹For a good discussion of procedures available under Rule 27, see C. Lyons, Jr., Alabama Rules of Civil Procedure Annotated (1986)

¹⁰See, Salser v. K.I.W.I., S.A., 591 So.2d 454, 456 (Ala. 1991) (again illustrates Supreme Court's deference to trial court decision in such a dispute.)

¹¹Daubert v. Merrell Dow Pharmaceuticals, 113 S.Ct. 2786 (1993).

¹²Frye v. United States, 293 F.1013 (D.C.1923).

¹³(cite omitted; opinion not published).

¹⁴113 S. Ct. 2786 at 2796.

¹⁵Laske v. Union Electric Co., (Mo Sup Ct, 79235 11/5/96).

¹⁶ 113 S. Ct. 2786 at 2796.

¹⁷ Id.

¹⁸ Id. at 2798.

¹⁹ 113 S.Ct. 2786 (1993).

²⁰ Id. at 2794.

²¹Ejection Mitigation Using Advanced Glazing, a status report of the NHTSA, November 1995, p.1-1.

²² Ejection Mitigation, @ p.1-1.

²³ Id.

²⁴ Ejection Mitigation @ p.3-1.

²⁵ Ejection Mitigation @ p.2-1.

²⁶Ejection Mitigation @ p.3-5; see also “Federal Involvement: What’s Next for Auto Glass?”, Glass Magazine, at p.2-1, May 1986 (stating that [t]he probability of a crash resulting in a death or serious injury is much greater when occupants are ejected from the vehicle.”

²⁷Ejection Mitigation @ p.4-1.

²⁸Ejection Mitigation @ p.5-1 - 6-20.

²⁹ Federal Motor Vehicle Safety Standard § 205.

³⁰ “More Glass-Plastic Glazing Ahead,” Glass Magazine, May 1985.

³¹ Glass Magazine, “Federal Involvement: What’s Next for Auto Glass?”, Vol. 36, No. 5 (May 1986).

³² Ejection Mitigation, @ p.3-5.

³³ “GM introduced glass-plastic glazing in 1984 on a limited number of production vehicles because of its potential to reduce cosmetic or non-life-threatening facial cuts that occur when occupants strike the windshield. The glazing, referred to as the high-penetration windshield. GM discontinued its use at the end of the 1987 model year. That decision was reached after customer problems with the product resulted in high replacement costs for customers and high warranty cost for GM. Many of the problems experienced by the customers were the result of the “inner-shields” sensitivity to abrasion. GM is also aware of concerns regarding poor vision through the glazing and increased difficulty in cleaning the plastic surface.” General Motors response to advanced notice of proposed rule making, “Side Impact Protection,” at p.2 (1988)

³⁴ NHTSA, Federal Motor Vehicle Safety Standards Side Impact Protection -- Passenger Cars, August 19, 1988.

³⁵ Gatekeepers are the consumer organizations, public safety groups, and trial lawyers that demand safe products.